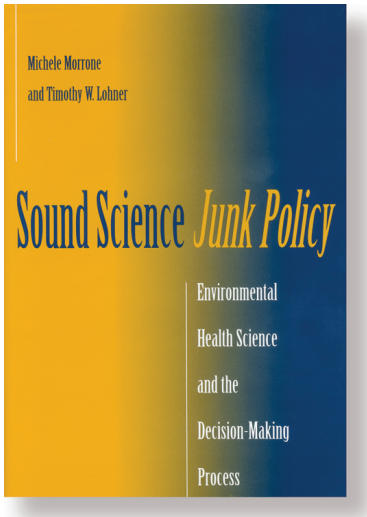
Sound Science, Junk Policy: Environmental Health Policy and the Decision-Making Process

Michelle Morrone and Timothy W. Lohner
Westport, CT:Auburn House, 2002. 208 pp.
ISBN: 0-86569-308-0, $64.95 cloth.



Sound Science, Junk Policy strives to examine the process whereby science is used or abused in public health and environmental policy. Its central theme is that the link between science and policy is flawed not because the science is bad but rather because science is inappropriately used in decision making. Morrone and Lohner describe several problems, including decision makers' failure to adequately recognize and/or describe the magnitude of uncertainty in scientific endeavors. They also argue that decision making is often not sufficiently transparent, nor does it involve a rational process for priority setting. They imply that these problems lead to distorted emphasis on minor problems and obfuscation of the real problems. The authors express their disappointment that, after a flurry of activity in the mid-1990s, the move to establish "comparative risk assessment" as a force in risk management and risk assessment never caught on.

One of the recurring themes in *Sound Science, Junk Policy* is that misuse of science in environmental decision making has led to the imposition of unnecessary and costly regulations on American industries. This theme is in direct contrast to Devra Davis's *When Smoke Ran Like Water* (reviewed in *EHP* 111:A58). Davis contends that public and environmental health policies have suffered because science was either ignored by public health officials or unduly criticized by industry, thereby causing unnecessary disease and environmental degradation.

Sound Science, Junk Policy is structured around a series of case examples. Many of them revolve around the notion that the U.S. EPA has misused science in many of its regulations. Among many reasons specified are undue influence by public health advocacy groups, inadequate involvement of scientists, and excessive application of the precautionary principle. The case examples are somewhat uneven in their presentation: Some are objectively written, but other examples seem more a lobby effort by industries such as the electric power companies. For example, the authors argue for delaying new regulations on mercury emissions from coal-fired power plants. On the other hand, the chapters on drinking water contaminants and disease vectors are balanced, informative, and convincing. The chapter on food safety effectively captures the debate on issues such as pesticide residues, food irradiation, and genetically engineered crops. Likewise, the chapter on waste management defines many of the issues to be decided, but it tends to minimize the concerns of environmental advocacy groups. It also attempts to undermine right-to-know initiatives such as the toxic release inventory.

In general, this book creates the impression that industry knows how to use science in environmental decision making but that advocacy groups often misuse science so as to influence regulatory agencies. For example, the National Wildlife Foundation is criticized for its use of science in advocating for reduced emissions from power plants. *Sound Science, Junk Policy* contends effectively that the United States and other developed countries do not give enough attention to global approaches for improving environmental quality. For example, the authors note that underdeveloped countries have severe water quality problems because of microbial contamination and that many pollutants possess global transport capabilities.

Sound Science, Junk Policy argues that federal dominance (command and control) of environmental health regulations can lead to excessive and costly requirements of industry. It also contends that regulatory resources should be focused on situations where known risks have been identified (i.e., microbial contamination of water supplies) instead of unknown risks such as pesticides. This point of view will undoubtedly be debated, as will other statements made in the book. Those who feel that industry is burdened by unnecessary regulations will applaud the book and quote it. Some who feel that industry has escaped necessary regulations will likely argue that the book is misleading. In any event, *Sound Science, Junk Policy* is a useful book because it does a good job in articulating the difficulties in translating science into policy. It is well referenced and the case examples present sufficient scientific and regulatory detail for the reader who seeks more information on this important and controversial topic.

George W. Lucier
Consultant

George W. Lucier is the former director of the NIEHS's Environmental Toxicology Program, head of a research group on molecular epidemiology and dosimetry, and co-editor of EHP. *He is now an adjunct senior toxicologist with Environmental Defense, consulting editor to* EHP, *and advisor to the National Toxicology Program.*

Air Pollution Science for the 21st Century
J. Austin, P. Brimblecombe, W. Sturges, eds.
New York, NY: Elsevier Science, 2002. 350 pp.
ISBN: 0-08-044119-X, $140

Analyses of Hazardous Substances in Air
Antonius Kettrup, ed.
Weinheim, Germany: Wiley-VCH Verlag, 2003.
139 pp. ISBN: 3-527-27791-7, $89.95

Biological Monitoring: Prospects in Occupational and Environmental Medicine
Jürgen Angerer, ed.
Weinheim, Germany: Wiley-VCH Verlag, 2002.
201 pp. ISBN: 3-527-27795-1, $85

Cellular Proteins and Their Ligand Fatty Acids: Emerging Roles in Gene Expression, Health and Disease
Asim Dutta-Roy, Friedrich Spener, eds.
Weinheim, Germany: Wiley-VCH Verlag, 2003.
300 pp. ISBN: 3-527-30437-1, $145

Child Health and the Environment
Donald T. Wigle
New York, NY: Oxford University Press, 2003. 336 pp. ISBN: 0-19-513559-8, $49.95

The Economic Dynamics of Environmental Law
David M. Driesen
Cambridge, MA: MIT Press, 2003. 272 pp.
ISBN: 0-262-04211-8, $62

Environmental Protection and Risk Assessment of Organic Contaminants
Rai S. Kookana, Ross Sadler, N. Sethuanathan, Ravi Naidu, eds.
Enfield, NH: Science Publishers, 2002. 266 pp.
ISBN: 1-57808-193-9, $79.95

Implementing Sustainable Development: Integrated Assessment and Participatory Decision-making Processes
Hussein Abaza, Andrea Baranzini, eds.
Northampton, MA: Edward Elgar Publishing, 2002.
320 pp. ISBN: 1-84064-913-5, $90

Phytoremediation: Managing Contamination by Organic Compounds
Steven C. McCutcheon, Jerald L. Schnoor, eds.
Hoboken, NJ: John Wiley & Sons, 2003. 880 pp.
ISBN: 0-471-39435-1, $115

Sustainable Environment: A Statistical Analysis
A. K. Ghosh, J. K. Ghosh, Barun Mukhopadhyay, eds.
New York, NY: Oxford University Press, 2003. 288 pp. ISBN: 0-19-565858-2, $35

Technological Change and the Environment
Arnulf Grübler, Nebojsa Nakicenovic, William D. Nordhaus, eds.
Washington, DC: Resources for the Future, 2002.
464 pp. ISBN: 1-891853-46-5, $49

Tobacco or Health? Physiological and Social Damages Caused by Tobacco Smoking
Knut-Olaf Haustein
Heidelberg, Germany: Springer-Verlag, 2003. 446 pp. ISBN: 3-540-44031-3, $91

Valuing the Environment in Developing Countries: Case Studies
David Pearce, Corin Pearce, Charles Palmer, eds.
Northampton, MA: Edward Elgar Publishing, 2002.
608 pp. ISBN: 1-84064-148-7, $140

Worlds Apart: Globalization and the Environment
James Gustav Speth, ed.
Washington, DC: Island Press, 2003. 192 pp.
ISBN: 1-55963-998-9, $45